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HEALTH

FOUNDED BY THE LATE Dr. U. RAMA RAU

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A JOURNAL DEVOTED TO HEALTHFUL LIVING

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M.B., B.S., M.L.A.

Associate Editor
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Editorial & Publishing Offices : 323-24, Thambu Chetty St., Madras-1

What's New in the News

"Mechanical Bird"

The "mechanical bird," is a new flying machine with flapping wings first designed and tested by Soviet air-modeller Solodov. The blue-prints of an aeroplane with flapping wings were recently made in the Moscow Aviation Institute, under the direction of engineer Boldyrev. According to calculations the new model's flying speed and altitude will be greater than that of the ordinary propeller aeroplane of the same capacity. It also promises to be more economical as regards the use of fuel. Soviet sportsmen are showing great interest in this new form of aviation.—(*U.S.S.R. Bulletin*).

Specs with Comfortable Frames

Are your spectacles inclined to leave an unsightly mark on the bridge of your nose? Spectacles have recently been put on the market which neither mark nor slide down the nose. Equipped with a "circlet" frame which arches gracefully above the bridge of the nose, they suit both the "low-brow" and the "high-brow."—(*World Digest*, Jan. 1957).

Relief Maps for the Blind

The National Institute for the Blind has developed special relief maps for blind school children. Made of plastic material these maps are far superior to the bulky papier-mache ones previously in use.—(*Digest of Digests*).

Figures are its Forte

A £ 75,000 electronic brain, claimed to be the largest, fastest, and most versatile in Britain, is to be the main equipment of a computing centre to be established at the Oxford University.

The apparatus will handle more than 3,000 multiplications and 5,100 additions in a second, and will be able to meet the needs of all departments of that University. It will also be made available to business firms to help the University to recover some of the high cost of running the centre.

Professor C. A. Coulson, Chairman of the Committee setting up the centre, says that the computer would mean "a completely new approach to calculations."—(*World Digest*, Jan. 1957).

Stockings Through a Slot

At the clink of a coin and the push of a button, butter, cream, cheese, jellies, soft drinks, camera films, and many other things can already be purchased from slot-machines in some London districts. They are a boon to the bachelor and the busy business girl who often have not the time to do their buying during shopping hours.

As the Slot-Machine-Age forges ahead, more and more items will be made available to the public: Rice-pudding, for instance, and sizzling steak, cooked in half a minute by infra-red rays. In fact, you'll soon be able to take a hot meal home with you at any time you fancy, providing you don't live too far from the "*Robot Chef*"!

And there'll be nylons-in-the-slot for the damsel in distress whose last pair have sprung a ladder on a Sunday—or outside business hours. Sizes:—8½ to 10 will be provided by the machines, in a choice of two shades.—(*Newer Inventions*).

Heart-Beat Pick-up

A small microphone which can be inserted into the heart to locate cardiac ailments has been developed by the Philadelphia General Hospital in the U.S.A.

The device, smaller than a pinhead, represents the medical application of naval acoustics developed for anti-submarine detection. Doctors using the device can listen to heart sounds directly, whereas with a stethoscope listening must be through the chest wall, the lungs, and the heart muscle.—(*W.D.*, Dec. 1956).

Ashtangasareeram

By

P. S. VARIER.

A Concise and Complete work on Anatomy and Physiology in Sanskrit. Certified by the All-India Ayurvedic Conference in 1926. Indispensable to lovers of Ayurveda. Price Rs. 12.

MANAGER,

ARYAVAIDYASALA,

Kottakal, S. Malabar.

'HEALTH'

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SCHOOL MEDICAL EXAMINATION—AN INSTRUMENT OF VOCATIONAL GUIDANCE

MEDICAL examination of children in elementary and secondary schools has come to be recognized as a valuable help in the detection and correction of defects noticed at such examinations. There are, however, several institutions in which regular and systematic arrangements have yet to be made in this direction.

Of the importance and necessity for the introduction of systematic, periodical medical examination for school children, there can be no two opinions. In the more advanced countries of the West where all the school children receive the benefit of such periodical check-ups medical examination serves the additional role of an instrument of vocational guidance so as to get a proper realization of the importance of the physical, intellectual and emotional aptitudes of the children.

In an article in the "*International Labour Review*" published earlier this year, Madame Marie Parmentier-Beloux, the veteran Medical Inspector of the Vocational Guidance Centres of the Seine Department in France, shows that medical guidance can play a positive and creative role by suggesting the special aptitudes as well as by detecting and pointing out the particular deficiencies or/and idiosyncrasies of the subjects examined. Medical inspection for this purpose starts in France at the age of 14—the beginning of adolescence when special problems pertaining to puberty come to be observed in quite a large number of boys and girls.

In order to be able to offer guidance on choosing one's life-career due weight has to be given to the fact that for the three years or more of apprenticeship to manual occupations or much longer periods involved in mastering a profession, strenuous work has got to be put in. The apprentice who starts his training in a new environment often finds it "difficult to settle down in a world that is very different from his family and school background."

Neither the routine school medical inspections nor the medical examination prior to selection for an employment can afford any real help to the adolescent in avoiding the pitfalls referred to; the routine school inspection is mostly preventive, and the medical examination for entering service usually takes place after the mischief has been done and the pupil has wasted many precious years in learning a job in which he will prove to be a misfit.

Dr. Parmentier-Beloux considers that "a morphological study of the examinee, to assess the biotype to which he or she belongs" would be most valuable. Her experience during 20 years has confirmed the well-known classification of human types (Dr. Sheldon's) *viz.*, muscular (somatotonics), emotional (viscerotonics), and intellectual (cerebrotonics). Personality tests have confirmed that the relationship between temperament and morphological type is constant. Thus, for example, it is difficult to get the muscular type of people to be satisfied with sedentary work, the emotional type with arduous hard work, and the intellectual with manual labour. "Clinical experience over several years has conclusively proved that "each trade has a well defined morphological type." This would rather suggest as a local contemporary pointed out that "our old Indian system of hereditary callings was not so obscurantist and superstition-ridden as our clever moderns would have us believe."

The vocational-guidance-doctor studies character and personality no less than physique. A physical defect can be offset by mental qualities or by sheer will-power. As Dr. Parmentier-Beloux observes, "True vocations are uncommon. The vast majority need some guidance. Their aptitudes cannot be judged merely by reference to examination results; for very often those at the bottom of the class, while including a number with a low Intelligence Quotient also include children with the highest I.Q. of all. And so-called "normal" children are "as much in need of examination as those who are noticeably abnormal; for it is the unnoticed minor defects that might later queer the pitch." Besides, "by ascertaining the physical aptitudes and personal characteristics that can be ranked as assets" vocational guidance medicine can effectively supplement personality tests.

Our social, economic and basic education programme as well as our public health schemes should henceforth realize the importance of medical examination as an essential instrument of vocational guidance. This will bring the fruition of our Basic Education schemes and our Five-Year Plans nearer and more effective.

HEART OPERATIONS UNDER DEEP FREEZE

(Freezing People to Life)

SIDNEY KATZ and RON KENYON

EARL TERREBERRY is the producer of what is probably the most unusual crop in Canada—ground hogs, brown furry animals about the size of cats, with beady eyes and rat-like teeth.

He sells his entire output—about four hundred each year—to University of Toronto scientists who, for four years, have been diligently seeking the secret of hibernation. During the winter the ground hog curls up in his burrow. His body temperature goes down almost to freezing point, his heartbeat, pulse and breathing are barely perceptible; his oxygen consumption is negligible. How does the ground hog do it?

One theory is that his ability to hibernate is derived from a bodily secretion. If true, and if this substance can be found and reproduced in the laboratory, it is possible that injections of it might give human beings the ground hog's powers of hibernation; and a new era of medical miracles would begin. Drastic surgery, now regarded as too dangerous to attempt, would become commonplace, and old people and people with organic defects will greatly benefit.

Since 1951, surgeons have been using the principle of hibernation in a wide variety of operations. The techniques they have evolved for slowing down the bodily processes are less effective than the ground hog's but even so the results have been impressive. These techniques are popularly labelled "*deep freeze*" but the correct medical term is *hypothermia*, which simply means "*very low temperature.*" Using various methods of refrigeration, surgeons have cooled patients down from a normal 98·6°F. (37°C) to 80°F (26·5°C).

Most people would die at 75°F. (24°C). At 80°F. (26·5°C) a person lives in slow motion. The rates of heartbeat and breathing are cut in half; his oxygen needs are only one fifth of normal. Thus it has been possible to perform surgery on the heart and blood vessels by cutting off the blood circulation entirely *for as long as fifteen minutes!* Ordinarily, the brain cells would begin to die if the brain were deprived of fresh oxygen-carrying blood for *as little as three minutes.*

But surgery of the heart and blood vessels is only one area where hypothermia has saved the lives of people in danger of dying from shock incurred by major surgery or serious accidents. When a person is subjected to a great and sudden shock—such as in a car accident or a major operation—the body immediately starts defending itself. There is an enormous outpouring of chemical secretions by the glands to maintain

the usual temperature, blood-pressure and other normal processes.

The conventional method of treating shock still consists of piling warm blankets on the patient, pouring hot drinks down his throat and injecting heart stimulants. This steps up the defence reactions of his body, but does it at the risk of an even faster depletion of the body's precious energy reserves.

Dr. Henri Laborit of Paris evolved a radically new treatment for shock, on the theory that if a shock victim's defence reactions were slowed down instead of stimulated, his vital reserve of energy might be conserved instead of exhausted. In his early work he achieved this "slowing down" by the use of tranquilizing drugs. Later, he also began using ice packs on his patients, bringing their temperatures down to about 90°F (32·3°C).

Using this technique he operated on sixty patients with advanced cancer, who were regarded as too feeble to withstand surgery. Forty of them survived the operation.

Laborit found that living in slow motion kept alive people with multiple fractures of the pelvic area, deep stomach wounds and extensive burns. Because the results achieved were so promising, scientists are now searching for techniques which will make hypothermia even more effective.

Theoretically, if a human being could be chilled to 53°F (11·6°C) his circulation could be cut off for hours at a time, since he would require practically no oxygen. But it is not safe even to approach that temperature.

The ever-present danger in bringing the temperature down below 80°F is ventricular fibrillation. This means that the heart goes into spasmodic, fluttery, uncontrolled beating and finally stops. On the other hand, true hibernators like the ground hog can be chilled almost to freezing point without affecting the heart. Experiments also showed that while they're in hibernation they can go on living after their blood circulation has been entirely cut off for two hours.

By careful observation the scientists have learned some of the ground hog's secrets of hibernation. They found that there is a remarkable similarity between what happens to a ground hog in hibernation and what happens to a human being in hypothermia.

What is it, precisely, that enables the ground hog to live at near-freezing level for prolonged periods? Is it a particular substance found in the body of the ground hog and *not found* in the body of man? Researchers are particularly curious about "brown fat"—a substance found throughout the ground hog's body but especially under his armpits. The scientists have tried to remove the brown fat to see if the ground hog could hibernate without it. Unfortunately, because it is so widely spread throughout the body, they could take off only

about half of it by surgical methods. With this amount taken away, it was found that the ground hog could still hibernate although it went to sleep later in the season, awoke more frequently, and once wakened, tended to stay awake *for days* instead *of hours.*

The method of chilling and then warming the patient's body varies from hospital to hospital. At the university of Colorado, the patient is placed in a tub of ice water and thawed in warm water. At a hospital in Washington, the patient lies on a rubber mattress through which cold water is circulated. In another university, doctors cut open the chest and circulate cold sterile salt water through it, which chills the heart, lungs and large blood vessels. The patient is reheated the same way, using a warm solution in place of the cold. At the famous Guy's Hospital, London, doctors recommend drawing the blood out of the heart, cooling it, and pumping it back in again.

When Professor Maurice Lacomme, of Paris, heard of Laborit's techniques he decided to adapt them to his work with premature babies.

Hitherto, Lacomme had used the conventional treatment for prematurity—placing the infant in a heated incubator provided with an enriched oxygen supply. But their bodies weren't strong enough for the fight for survival. Despite the utmost care, mortality was high. He now places the premature infants in cool chambers. This counteracts their state of shock. The survival rate of these premature infants has risen dramatically! —(Condensed from *Maclean's Magazine*, Dec. 1956).

Fasting for Rejuvenation

It does not hurt to go without food. It rejuvenates you, and lightens your spirit if you go about it sensibly. When you fast, your body lives on its own resources, and it burns up the accumulated dross first. Keep the channels of elimination open. Go on living actively. Breathe more deeply. Give more attention to your skin. Exercise more with stretching, flexing movements. Care for your body more. Use mealtime hours to do things you have always wanted to do. Start with short fasts—missing a meal, then a day's meals, and then if you feel you need it, fast for three days. But each time, break your fast with the simplest small meals possible, of fruit, milk, and nothing more than half a round of whole-wheat rusk. Fasting is really a technique of letting the body cleanse itself of waste, unneeded fat, and the best remains to serve you anew.—*(Good Health,* London, March '57).

Arthritis has to be fought on many fronts, with therapeutic exercise, with heat, with sun's rays, with diet, with intelligence, with a stout heart, and with the will to claim the full degree of health that is your birthright. In diet, the important things are proteins, vitamins, and food minerals—especially calcium, phosphates, and iron; and to keep the food balance alkaline. The latter means eating sufficient fresh fare, especially vegetables, fruits and milk.—*Nutritian.*

PYORRHOEA ALVEOLARIS

N. S. BALACHANDRAN,
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PYORRHOEA alveolaris or Rigg's disease is a disease of the oral cavity and has been known to exist from very ancient times as revealed by the examination of the skulls of prehistoric man; its incidence and severity have however, greatly increased with the progress of civilization. This disease is also found in the mouths of some domestic animals which share man's abodes.

Pyorrhœa is characterized by a purulent discharge from the gums due to infection of the membrane that lies between the teeth and their sockets in the jaw. It is accompanied by a recession of the gums, ultimately forming pockets of pus along the lateral surface of the roots of the teeth making them loose and fall out. The early indication of pyorrhœa is an inflammation and redness of the gum margins about the necks of the teeth with a tendency to bleed on slight provocation. Gradually pockets of pus form along the gum margins causing offensive breath. If unchecked this destructive process extends deeper into the supporting structures of the teeth and make it weaker and the teeth become loose and fall out. The pus and blood originated from pyorrhœa enter the stomach along with food and drink and cause ulcers and other disorders of the stomach and intestines. Pyorrhœa may also cause diseases in the local regions of the mouth, head and neck. The possible complications are infections of the nose and throat, diseases of the internal ear and suppuration of the tonsils.

Like all other preventable diseases it is far easier to prevent pyorrhœa than attempting to cure it; once the condition has developed most elaborate treatment may be called for, which may effect a cure but in most cases all or nearly all teeth will have to come out. The onset of pyorrhœa may be arrested if the patient takes prompt treatment on the appearance of the early signs, *viz.*, inflammation and bleeding from the gums.

The two main causes of pyorrhœa are :—(1) local infection secondary to irritation and (2) systemic infection. There are many irritants which affect the gums; tartar deposits on and between the teeth, the misuse of tooth-picks, ill-fitting dental plates, the use of coarse rough and gritty tooth powders and irregular teeth or malocclusion of the teeth. The irritation set up by these agents bring about mechanical scratching on the gum margins also destroying some of the membranes; severe inflammation results which may lead to pus-formation and loosening of the teeth. Tartar deposits pressing upon the gums, make them recede leading ultimately to a loosening of the teeth. Also they often give rise to interspaces between teeth and bacterial infection takes place. Tartar deposits

should be cleared by regular visits to the dentist. If the initial irritation is removed the protective forces in the body will resist the spread of infection.

The constitutional causes which predispose to pyorrhœa are lowered vitality resulting from debilitating diseases like diabetes mellitus, blood diseases, infectious diseases like tuberculosis, gout and arthritis, metallic poisoning and faulty diet and above all the continued neglect in exercising and cleaning the teeth properly. Debilitating diseases lower the resistance of the individual to infections and bring about irritation of the gums. The lowered resistance of the oral tissues in diabetics is indicative of the debility and nutritional disturbances induced by the disease; consequently diabetics are usually in a state of poor oral hygiene with severe bacterial infection. In gout and arthritis there is usually excessive retention of uric acid in the blood and tissues resulting in serious nutritional and metabolic disturbances in all the bodily tissues. Salts of uric acid may be deposited in certain tissues as crystals. These deposits may be laid down in the gingival capillaries and in the peridental membrane where they act as irritants. Metallic substances like mercury, lead, bismuth, arsenic, copper, phosphorus and aluminium when they enter the human body may act as poisons; these may enter the system in various ways attack and weaken the resistance of the periosteum, peridental tissue and the alveolar process of the maxillary bones. Faulty diet and malnutrition constitute another predisposing factor to pyorrhœa. Diet plays an important role in the control and prevention of pyorrhœa. Foods which form acid in the system *e.g.*, sugars, lean meats and buttermilk are the right type of food for a pyorrhœa patient. Chronic constipation results in a continual absorption of toxins in the intestines and may predispose to pyorrhœa. Proper exercise and regular cleaning of the teeth, a well-balanced diet with an adequacy of the essential vitamins and minerals and attention to the regular elimination of waste products from the system are all absolutely necessary for maintaining the hygiene of our teeth and mouth.

Margarine Facts

Nine out of ten people in Britain eat margarine, according to information supplied by Van den Berghs Ltd. Margarine generally consists of vegetable oils and fats, as well as whale oil. Fats are mainly :—groundnut oil, cocoanut oil, palm kernel oil, and palm oil. Vegetarian margarines, of which there are several brands, are to be preferred. Margarine is, it is claimed, as nutritious as butter, each ounce being fortified with vitamins A (760–940 international units), and D (80–100 i. units). Britain's *per capita* consumption was 7·5 lb. in 1913, 10 lb. in 1938, and is 17·86 lb. today.—(*Good Health*, London, March 1957).

WHAT HUSBANDS DO NOT, BUT SHOULD KNOW ABOUT SEX RELATIONS

(In the form of questions by wives and answers by an expert)

Dr. ABRAHAM STONE,
Expert Adviser on Family Planning, U.S.A.

Q.. Should parents pay more attention to bringing up their boys to be considerate husbands and lovers?

A.. I would. At a recent meeting with a group of parents, I asked what their goal was in bringing up their boys. Some of the replies were: "to give him a good education;" "prepare him for a professional career;" "get him ready to take over the business;" "make him a loving citizen." No one suggested that a major goal should be to prepare the boy to become a good husband and a good father. Yet the achievement of happy marriage and family life is one of life's most satisfying goals for any man or woman.

Even more important to a child than parental teachings is the attitude of the parents and their behaviour towards one another in the home. A boy brought up in an atmosphere of conflict, hostility, and ill will, is less likely to grow up into a considerate husband and sex-partner than one brought up in a home based on love, mutual warmth, respect and consideration.

Q. Are men then so well educated in the facts of sex as they are credited with being?

A. Usually they are not. Most men know little, for example, about female structure and function. Particularly, they fail to appreciate the marked differences between men and women in the emotional attitudes towards sex.

Q. To what extent would you say the husband's ignorance of women's emotional nature is responsible for poor sex relations?

A. To a considerable degree. Wives frequently complain that their husbands are too "perfunctory" and too "direct." Most women need a greater variety of play and physical stimulation before they are sufficiently aroused to want a sexual union. Tenderness, compliments, verbal love-making, are important in this period. One woman said to me, "A few kisses *before* bedtime make the sex relation so much more meaningful for me later on."

Q. Where can men get practical information about the needs and nature of women?

A. If the wife is intelligent and mature, she can make her husband aware of her wants and her reactions. Beyond this, numerous good books provide helpful information, such as: *The Psychology of Sex* (Heinemann), by Havelock Ellis; *The Psychology of Women* (Heinemann), by Helene Deutsch; and, if I may mention it, *A Marriage Manual* (Victor Gollancz), by Drs. Hannah and Abraham Stone.

Q. Husbands are supposed to be teachers to their wives in their sex relations. Is this idea sound?

A. No:—This notion is derived from the tacit belief in modern society that most men may have had sexual experience before marriage. However, many young men do not have premarital sex experience, and even those who do, may have little understanding of the psychological and emotional implications of the sex act for *the wife.* The average young husband is therefore, not necessarily an informed sexual guide for *his wife.* To establish a good sexual relationship, husband and wife should learn together through practice and experimentation.

Q. Many wives complain that husbands make too frequent sexual demands. What is considered the average frequency of sex relations in marriage?

A. Statistical studies show a marked variation in the frequency of marital relations, ranging from once a month or less to once daily or more! Actually, the frequency is too high or two low only where either husband or wife feels disturbed about it. On an average, men under 35 have relations in marriage about two or three times a week. After 40 years of age the frequency gradually diminishes to about once a week after the age of 55. In the main, diminution in sex activity in middle age is due to psychological factors, such as loss of interest, fatigue, pre-occupation with work or anxiety about sexual capacity.

Too frequent demands on the part of the husband may sometimes be a manifestation not of real sexual desire but of aggression or an attempt to escape from the frustrations of daily living. More often, however, a wife's complaint of too frequent advances is the result of her own inadequate sexual maturity, or else of the husband's failure to arouse her sufficiently to desire him more often.

Many women admit that they have stronger sexual urges than their husbands, and that they are, in fact, resentful of their husbands' infrequent desires. Understanding, tolerance and sometimes professional counsel may be needed to resolve the frustrations and conflicts which may arise in such a situation.

Q. To what extent should a husband wait for an invitation from his wife?

A. In sexual activity the male is generally the initiator. However, if by word or more effectively by gesture, a wife shows her desire for her husband, he will be deeply pleased, and his feelings for her will be greatly increased. For a successful relationship, it is well for the wife to take some of the initiative.

Q. One threat to a wife's sexual satisfaction is the inability of the husband to wait for his wife's climax. Is there any help for this?

A. Though some men may be able to carry on the sex relation for a fairly long time, most of them will complete it within one to two minutes, unless they make a conscious effort to delay it. The husband ideally should employ in advance various forms of sex arousal and stimulate his wife to a degree where she, too, will attain a full response

within that time. However, even if a wife does not respond completely each time, it need not become a source of frustration. A woman may have sufficient pleasure from the act itself, even without a climax, to make the love relationship gratifying for both.

Q. How can husbands be made to understand the extreme importance to women of tenderness and loving words?

A. Primarily through better education for marriage, and through keeping open the paths of communication between husband and wife. In our culture, men are trained to repress their emotions, and they find it difficult to express verbally their feelings of affection. "I know he loves me," a wife will say, "but he never says so."

Men must realize the importance of the "verbal caress." Love may be deeper than speech, but often it needs to be spoken. For only if it is continually strengthened by signs of affection and consideration, will it grow and flourish.—(*Reader's Digest*, March 1957).

AFTER DINNER SPEECHES

Sir ALAN HERBERT

The dog, considered a sagacious beast,
Does not give tongue when he has a feast.
Nor does the cow go mooing round the mead
To tell the world that she's enjoyed her feed.
Not even lions, I imagine, roar
After a meal—unless they want some more.
All Nature has agreed that it is best,
When fully fed, to ruminate and rest.
The Ancient Romans, flushed with food and wine,
Decided it was wiser to recline.
The cannibal, when he has had his fun,
Does not propose the health of anyone.
But Modern Man, by some malignant fate,
When he has eaten. simply *must* orate:
And those who don't, though eager for repose,
Must strain their ears for quantities of prose.
If toasts and speeches have effective force
Our land should be as healthy as a horse.
If wishful drinking rings a magic bell
Our Trade, our Industry, should do quite well.
This quaint old custom should be understood
If all the speeches were extremely good.
But it is not a very easy trade:
And more than half of them were best not made.
Oh, what a wise and comfortable thing
If all the toasts were silent—like 'The King'

—(*After Dinner*, by Oswald Lewis, London).

THE USE OF ATOMIC ENERGY
IN THE WAR AGAINST DISEASES

Condensed by
K. SRINIVASAN, I. Sc.,
Bangalore-4

THE Soviet scientists have made it possible to improve diverse branches of national economy, by their experiments in the field of utilizing atomic energy for peaceful purposes.

Uranium and other radio-active substances were discovered, at the time when it was known that Radioactive radiation possessed great biological action. This prompted the idea of utilizing these substances, for the treatment of the deadly disease—Cancer. In former days the patient's organism could be radiated only externally. Natural radio-active metals were unsuitable for internal administration, as they themselves often produced some other diseases.

But the modern discovery of artificial radio-active substances have changed the situation thoroughly. Now more than seven hundred isotopes are known. This has opened extensive possibilities for the utilization of many of them in the national economy and also in Medicine.

Every human disease is related in one way or another to metabolic disturbances; these disturbances can be detected by what are known as "*Labelled atoms*" for instance, the diagnosis of thyroid glands is carried out with the help of labelled atoms. A small amount of radioactive Iodine is introduced into the organism which accumulates in the thyroid gland; a counter-like apparatus is placed on the neck of the patient. This device helps in knowing the rapidity and the quantity of the isotope of Iodine, that has been taken up by the gland. This in turn helps to diagnose and to prescribe proper treatment for the disease; with the help of these labelled atoms it is also possible to elucidate the rate of circulation, which in its turn helps to ascertain the complications of the heart and blood vessels.

Radio-active substances are used in medicine not only as a means of diagnosis, but if they are taken in slight excess, a healing influence is registered. Radio-active phosphorus irradiates bone-marrow and is utilized as a means of combating, "*Leukaemia*" (cancer of the blood). Modern radiology plays an important role in the treatment of cancer.

Soviet medicine widely employs artificial radio-active cobalt for external irradiation with gamma rays, instead of the expensive and rare Radium.

Powerful therapeutic instruments like Gut-co-400 make it possible to act upon a diseased focus at a depth of 10 to 12 centimetres from the surface of the skin; with the help of such an apparatus, tumours of the lungs, œsophagus etc., are treated; and also it is possible to cure cancer of the jaw, larynx,

naso-pharynx and many other diseases including (nævi) birth marks on the human-skin.

Radioactive treatments are very effective as most of the patients recover their capacity of work and health after such therapy.

Atomic energy has opened up limitless possibilities to medicine. The curative power of artificial radio-active substances are well known, thanks to the successes achieved by "Atomic Technique," in peace-time constructive work.—(From a report of an interview with Mr. Gleb Frank in *My Magazine of India*).

PASS THE BUTTER, PLEASE!

ALTHOUGH scientists tell us that margarine, with its added vitamins, is the nutritional equal of dairy butter, most people prefer the old-fashioned product.

And with the cream from eighteen pints of quality milk still needed to make a pound of butter, it stands high as a natural health-giving food.

In the earliest times butter was highly esteemed, since only small quantities were made. So highly, in fact, that it was often used as a sacrifice to the gods.

The first herdsmen were nomads, and they carried their liquids in skin bags. Butter-making was probably discovered by accident through the agitation of such a skin-bag-full of milk carried for a long journey on the back of a horse or camel.

Once the initial discovery had been made, the herdsmen set about deliberately making the tasty substance, devising crude churns from hollow logs with sealed ends, and suspending them by ropes from trees. When these containers were filled with milk or hand-skimmed cream and swung to and fro by hand, they produced good butter.

In due time, of course, milk itself ceased to be churned. It was set in shallow pans and after twelve to twenty-four hours' standing, had its cream skimmed off by hand. This greatly reduced the volume of liquid to be rotated in the churn, and so shortened the time needed to produce butter.

Nowadays, most of the world's butter is factory-made, and is churned in gigantic cylinders of teak and steel. These are internal worker churns, fitted with running trollies to remove the finished butter, and glass sight-doors on their fronts through which the process can be watched. Running at top speed for thirty to forty minutes, they make an average of two and a quarter tons at a single churning.

British and Irish farmers concentrate on liquid milk, producing between them only about 15 per cent of Britain's butter—in some years less, when small quantities are imported from Poland, Norway, Sweden and Holland. Of the butter on our bread, 43 per cent comes from New Zealand, 33 per cent from

Denmark and 9 per cent from Australia.

These butters have their particular qualities and distinctive flavours derived from manufacturing processes and the type of milk used. Thus, the Danes have always concentrated on a strong-flavoured, often rather salty butter, known to dairymen as a ripened cream butter. This means that, after pasteurization, Danish cream has a lactic acid culture added to it which partially sours it and increases the delicate, volatile flavours, ensuring that they are retained in the subsequent butter.

[NOTE :—In Indian homes both cows' and buffalo's milks are well-boiled, so as to allow the cream to separate and settle as a fairly thick layer on the surface ; this milk is allowed to cool to body-heat (about 99°F) and then soured overnight by adding a small thimble-ful of butter-milk made from the previous day's curds. The nice sweet smelling slightly acid curds with a little water added are then churned with the help of a wooden churn when the butter separates out and floats on the surface of the butter-milk, to be collected and stored. Such butter has a most delicious flavour even better than the Danish and Australian butters.—Ed. HEALTH].

New Zealand and Australian butters are firmer in texture and more delicate in flavour than Danish butter. They are also brighter yellow because the Jersey cows (famous for the high colour of the butter-fat in their milk) are able to feed on their pastures all the year round, unlike their European counterparts.

Butter must, by law, contain at least 80 per cent fat, and a certain amount of casein. It must also contain not more than 16 per cent of water, nor more than 2 per cent of salt.

Great care is taken to produce an acceptable colour, body-texture, waxiness and sheen. Indeed, modern butter-making is a specialized art, governed by connoisseurs' rules.

With so much care lavished upon its manufacture, butter deserves to be treated properly in the home after purchase. With a really "safe" life of only a fortnight, except in very cold weather, butter is best kept in the refrigerator, wrapped preferably in an opaque covering, and isolated from strong-smelling foodstuffs like cheese or fish.

Although they cannot reproduce butter in the laboratory, scientists know that the delicate flavour comes from what they term the "unsaturated fats" in butter. These are slightly volatile and absorb odours and flavours very easily. Only small quantities of butter, enough for each meal, should be put on the table, and then best in a covered dish—a table fashion that has unfortunately and inexplicably died out 20 or 25 years ago !—(*English Digest*, Feb. 1957).

Flesh Foods

"The Westerner who can live upon a clean, sweet, wholesome diet of vegetables, cereals, and fruits, does not become drowsy from his food ; he needs no stimulant. There are no vegetarian drunkards. The soothing effects of vegetable food are manifest as finer feelings, which replace the ferocity fostered by flesh foods."—(Max Heindel, in *Good Health*, London, March 1957).

BREAST FEEDING

JACQUELINE BENHAM, M.B., Ch.B., D.P.H.,
London

ABOUT two or three weeks after baby is born, when mother comes home and takes over the responsibilities and extra work of looking after the house and the new baby as well, breast-feeding has to face its biggest test. Very often, at this stage, you may notice that you have less breast-milk and that baby is restless as a direct result.

The remedy, of course, is extra rest and a firm refusal to let the household chores get on top of you. It makes an enormous difference if you can get help with the rough work for the first week or two. If not, make a point of having a regular rest, with your feet up, every afternoon, even if it can only be for twenty minutes or half an hour.

Keep up the amount of fluid intake—drink four to five pints a day. It is a good plan to make a practice of drinking a tumbler of milk or water during each feed. There is no reason at all why the supply of breast-milk should not return to normal.

Sometimes mothers have difficulty because of too much milk, so that the breasts are engorged and baby finds it impossible to get a proper mouth-hold on the nipple. He may also be frightened and upset if, when he feeds, *the breast pushes against his nose and interferes with breathing.* In both cases the problem may be solved by expressing some of the milk by hand, before putting baby to the breast.

One of the most troublesome complications that may occur is inflammation of the breast tissues (mastitis) which can, unless treated early, lead to a breast abscess. Usually the trouble starts with a cracked nipple. Two things may happen as a result. Firstly the nipple is so tender that feeding is painful and the mother cannot endure letting baby empty the breast properly. Secondly, infection spreads inwards through the crack. Then the breast itself becomes hard, swollen, and tender, and if left in this state an abscess may form which may need draining.

The great thing is to try and avoid cracked nipples in the first place. The cause is often prolonged sucking, especially continued sucking at a breast which has already been emptied. If the nipple does develop a crack it should be treated at once. Feeding from the breast can be continued, providing a nipple shield is used, but it is often more satisfactory to express the milk and to feed baby with a cup and spoon for a few days until the crack has healed. In any case, it is most important to empty the breast thoroughly and regularly.

If the tissues become hard, painful and hot to the touch, fomentations or poultices give relief, and your doctor will advise you about these. At the same time, the breast should be

given extra support. Complete rest in bed for a day or two is the best sort of treatment, but very often this simply cannot be managed.

The greatest possible cleanliness is essential in breast-feeding. *The breasts and nipples should be washed and dried before and after each feed.* Young and delicate babies are particularly liable to pick up mouth infections, such as thrush. This often seriously interferes with sucking and may put the bay off his feeds. It appears as white patches on the tongue, gums and lining of the cheeks. The condition requires early treatment, before it gets a hold, but there is no reason to stop breast-feeding because of it.

Mother's milk never disagrees with baby. It can only upset him if the methods of feeding it to him are wrong: for instance, if mother herself is worried and over-anxious and so passes on her fears to baby while suckling him, or if something she has eaten affects her milk. While you are feeding baby, it is as well to avoid pickles and highly seasoned foods and it may be necessary to cut down on fruit, if it is having too laxative an effect on baby's bowels.—(*Family Doctor*, February 1957).

They Haven't Stopped Us Smoking Yet!

(British smokers average 14 to 15 a day for men and 7 to 8 day for women)

RONALD HARRISON

IT is six years since the beginning of the lung cancer scare.

Fresh research, here and in America, has tended to strengthen the connection between smoking and lung cancer.

Yet despite this evidence smoking has been *increasing* steadily year by year.

During 1954-'55 the Commissioners of Customs and Excise revealed that in January £ 650,000,000 was collected in revenue from tobacco, *i.e.*, £ 23 millions *more* than in 1953-1954.

Group earnings of the Imperial Tobacco Co. last year rose to a record £ 27,387,189, compared with £ 26,252,128 in the year before.

This steady increase in smoking is not confined to Britain.

The average New Zealander smokes even more than the average Englishman. America, where the "lung.cancer scare" caused a drop from 435½ billion cigarettes in 1952 to 402 billion in 1954, had crept back to 414 billion by the end of last year.

Cigars, supposedly "safer" than cigarettes, had their best sales since 1930.

The average Danish family is spending nearly one-eighth of its income on tobacco. The Danes smoke 4,000,000 cigarettes a year—the equivalent of 900 each, cradle to the grave, compared with 2,000,000 in 1938.

This suicidal determination to go on puffing despite medical warnings is odd but consistent. For men have shown an almost

fanatical determination to go on smoking whatever the risks or penalties.

And the penalties *have* been severe :—In Turkey, for instance, because smoking was not sanctioned by the Koran, offenders with pipes thrust through their noses were led on mules through the streets. Anyone caught trafficking in tobacco was likely to have his head cut off under a Chinese decree of 1638.

Various Russian Czars ordered death, torture or deportation for smoking. Viennese police at the end of the 18th century had orders to fire on anyone seen smoking.

Anyone growing tobacco could have his goods confiscated and anyone caught smoking could be heavily fined in Transylvania in 1688. Smokers were birched in Henry VIII's day. Elizabeth I merely confiscated their pipes and tobacco boxes.

All the same, man went on smoking. But the smoker has been pretty regularly warned, too, about the danger to his health ever since he first put a pipe in his mouth.

James I, King of England who called it this "custome lothsome to the eye, hateful to the nose, harmefull to the braine and daungerous to the Lungs," was a notable but by no means isolated critic.

Warnings have continued in this strain over the centuries. Most recently Dr. Hector Mackenzie Wintle, Medical Officer of Health for South Oxfordshire, brought the counterblast up to date with a similar sort of ring.

"The heavy smoker fouls God's good air, burns the furniture, scatters ash and fag ends everywhere he goes, has chronic catarrh, a stomach cough, yellowed fingers, blackened teeth and permanent halitosis. He ruins appetite, digestion, palate and wind and even impairs his heart."

Man has gone on smoking. Governments eventually tumbled to the fact that if they could not curb man's extraordinary craving for tobacco they could at least reap some financial benefit from it.

Cardinal Richelieu was among the first to see there was money in it. Louis XII had prohibited smoking. But the Cardinal put up the idea of a tax on all tobacco imported into France. The French government justified it by saying that too cheap tobacco was harmful to the people's health !

Today's Britain's smokers, averaging fourteen-fifteen a day for men and seven-eight for women, provides the Chancellor of the Exchequer with one of his largest and most reliable sources of income.

The nicotine-stained 2s. 10d. which Mr. Thorneycroft draws from every packet of twenty helps to provide him with no less than one-fifth of his total Budget.

If we were to cut down our smoking by even half Mr. Thorneycroft would not only have several millions of pounds to find from other sources ; he would also have to cope with a vast and sudden diversion of purchasing power into other channels. —(Condensed from *Oxford Mail*, 4th April 1957)

YOU NEED EXERCISE

THE need for exercise is a real need. The activity of our muscle is, or should be, as much a part of everyday life as eating and sleeping.

Today, as never before, machines are doing what muscles were intended to do. In the automatic age of the future, I suppose, man's muscles will enter into the activities of life, less and less.

No one would deny the housewife her domestic appliances, the gardener his mowing machine, or the farmer his tractor, but the advantages that come with these labour-saving devices encourage us to misuse so frequently the extra time that has been saved. For it so often happens that instead of using the time gained by the use of machines, more enterprises are followed that require additional mental powers, when what is really needed is more physical exercise.

Physical fitness is not just an one-sided matter of a special diet or a particular exercise. It is rather a combination of all the factors dealing with life itself. It is the result of the balanced efforts of mind, body, and spirit. We need to have a clearly functioning mind to control the physical aspects of our body. A tranquillity of mind comes from a trustful confidence in our Creator, and this will reflect in the physical side of our make-up.

However, important as a sound mind is, the body cannot function without this essential muscular system. In fact, without muscular function every process of life would cease to operate and there would be a complete cessation of movement.

More than 30 per cent of our body is muscle, and is only less if we are too fat. Some 20 per cent of our muscles are voluntary muscles—that is, they are under the control of the will, and are intended for work and exercise. If this muscular portion of our body is not fully active, the remaining part of the body will suffer and become defective.

Exercise is produced by the activation of muscle contraction. Each one of us possesses more than 600 muscles, which make up the flesh of our bodies. The muscles with their tendons operating directly, or over pulley mechanisms, move more than a hundred joints. Surprising as it may seem, about 150 muscles are concerned with keeping us upright when we are moving. And if all these muscles and joints are to be kept in good condition, they require regular exercise.

It is the function of the muscles to contract, and it is these contractions that produce movement and generate heat. That is the reason why one shivers when it is cold, and perspires when engaging in physical movement.

The majority of muscles are under the control of the will,

although there are some whose activity cannot be affected by voluntary thought, yet they are influenced to some extent by emotional reactions. Because of this, it is easy to see the necessity of a sound mind for the maximum well-being of the body. Both muscles and nervous system are part of the same organism, and they are very closely related.

It appears that muscular exercise, which requires the use of our voluntary muscles, results in supplying something that keeps the emotional side of us on an even keel. *If one engages in enough muscular exercise, it is very unlikely that complaints like nervous debility will arise.*

Doctors have found that physical exercise, in the form of working with one's hands, is a most important form of medical treatment. Whenever a patient is capable of physical activity, especially in the form of constructive enterprise, both the physical and mental health are improved. In recent years the importance of "occupational therapy" has been realized. Take physical activity away from a person, and he will soon think of himself only. Too much self-interest is corrosive, destroying the body, mind, and spirit. Give him exercise, and you will soon note the change. Too much inactivity leads to discontent and even melancholia. *It is the overactive mind and lack of physical effort that leads to dyspepsia, insomnia, and like diseases.* But on the contrary, given sufficient physical exercise, one sparkles with the joy of life, can eat, sleep, and really live.

"Employment or exercise, is Nature's best medicine, and is essential to human happiness," said Galen centuries ago.

"Those who combine useful labour with study have really no need of gymnastic exercises. And work performed in the open air is tenfold more beneficial to health than indoor labour. The mechanic and the farmer both have physical exercise, yet the farmer is the healthier of the two. Nothing short of nature's invigorating air and sunshine will fully meet the demands of the body. *The tiller of the soil finds in his labour all the movements that were ever practised in the gymnasium.*"

The indoor worker should include in his recreation some form of outdoor exercise.

There is no exercise that is better than walking. By walking, the circulation of the blood is greatly improved, and most muscles and all organs of the body are brought into use.

A fundamental law of nature is that exercise will promote growth of both muscles and bones, but disuse will bring atrophy or wasting. A sound development and growth of muscles depend upon exercise. Beside this, exercise encourages an increased flow of blood; the heart beats faster and lung expansion is greater and the body receives a good supply of oxygen.

Children would not grow unless they had plenty of exercise.

Unfortunately, after we grow up and reach our prime, we tend to settle down, and get soft and flabby through inactivity. We soon forget the activity of our youth which was so essential to our growth and strength.

If it was so essential then, it must have an important bearing on our physical fitness now. When physical exercise is neglected, body function is invariably impaired.

For example: the person who lives an entirely sedentary life will find his ligaments and joints become progressively less efficient every year he lives. Consequently in many middle-aged people the movements of the spine and foot joints become poor and limited. As the years progress, the spine becomes stiff because of disuse and lack of exercise.

Lumbago is a common ailment of the lower spine, but if this part of the anatomy received regular exercise, lumbago would be less heard of. The muscles supporting other parts of the back become readily tired through lack of exercise, and our posture suffers with unsightly rounding of the shoulders and even curving of the spine.

Furthermore, the less we exercise the more obese we are likely to become. Then this excess fat hinders respiration, and if there is a deficient expansion of the chest the body is unable to function as it should owing to a continued lack of oxygen. Poor breathing habits predispose us to many respiratory ailments like coughs, colds, and bronchitis. If health is desired then good breathing is essential, for it is one of the most valuable and helpful of all bodily exercises.

In conclusion, to emphasize the importance of exercise, I would like to remind you that any part of our body that is inactive or ceases to exercise, follows nature's laws, and wastes and then dies.—(*Good Health*, London, March 1957).

CHILDREN'S CHARTER—NEW SWEDISH PLAN

Sweden is planning a children charter to give her young people a better start in life.

The charter, which will also help overworked mothers and overtaxed fathers, was drawn up by Government-appointed experts working in 8 separated groups. Parliament is stated to have since approved it and made it law.

Under it, children's allowances now paid to parents, irrespective of their income, for every child under 16 years of age, will be raised from 290 crowns (about Rs. 265) to 432 crowns (about Rs. 400) a year. For families with many children to keep on a small income, special extra allowances will be paid, the amount varying according to individual needs.

The experts have taken into account the fact that, in a modern community, many children must stay at school after reaching the age of 16 if they wish to obtain a worthwhile job. They recommend, therefore, that the allowances be paid for an extra period of up to two years if the child continues full time studies. In that case, however, the allowances would be called "scholarships" and would be paid at the end of each term by the Principals of the technical colleges and other higher educational institutes.-(*F. Press Service*).

LATEST NEWS ABOUT TEETH

JOHN HILLABY, D.D.S.
Birmingham

TOOTH decay is a disease of civilization. I reflected on this fact during a visit to the British Museum.

For two hours I pored over the fossil teeth of ancient races of men. The white fangs of Magdalenians, Grimaldians and Capsian men were apparently without a flaw.

Caries or tooth decay was certainly not unknown among our forebears. But it is remarkable that the teeth of man are the most durable part of his body after death. Yet teeth tend to be extremely vulnerable to decay during life. Why ?

Bluntly, we don't know. We have a score of clues. We can even arrest tooth decay, temporarily at least, by some expedients. But there is no simple answer to the question.

All we can say is that a great deal is now known about the "skin of our teeth," the seemingly lifeless enamel, and also about the bacterial processes that take place on it and underneath it, right inside the sensitive interiors of teeth where the dreaded pains are generated. Teeth consist of two kinds of hard tissue.

There is the dentine or ivory core and there is the enamel. Dentine is built out of connective tissue, the same stuff that makes bone and cartilage. The enamel is produced by epithelial or skin cells which also give rise to hair, nails and horns. It is the hardest, strongest tissue of the body.

It has been said that if dentine is super-bone, then enamel is a super-skin. It begins to form when, prenatally speaking, we are only a month old. The cells start to construct tiny, pencil-shaped prisms on our teeth-to-be. These prisms are visible under the microscope.

Magnified about five hundred times, the prisms resemble, together, the skin of a reptile, and a simple calculation shows that there would be room for about five hundred of them within the thickness of a human hair.

What has emerged from many sub-microscopic examinations is that before a tooth "bug" can invade, the bonds between our tooth components, the basic building blocks so to speak, must be destroyed or weakened in some way.

The use of chemical tell-tales has shown that, far from being lifeless, there is a constant interchange or give-and-take process between elements in the enamel and the saliva that bathes it and also between the enamel and the internal pulp.

In healthy, disease-free teeth there is apparently an equilibrium of this give-and-take, but when something goes wrong, the building blocks of the teeth crack, decay and admit the agents of caries. *Result*: bad teeth. Clearly, therefore, the heart of the problem is in the "something."

There is a theory that the

breakdown in the enamel is caused by one of the numerous chemical go-betweens or enzymes of the body. This causes the mineral prisms to fall apart and cavities to form in the teeth.

Unfortunately, it is by no means clear why one tooth develops a cavity when another, next to it and subject to just the same physical and chemical stresses and strains, remains disease-free. It is possible, I think likely, that there are herediatary differences in the individual teeth.

We know that certain mineral salts, such as the fluorides, apparently help in minimizing tooth decay by what seems to be a certain amount of patrol activity round the tooth enamel.

We know, too, that certain protein foods and vitamins especially vitamins A, C, and the "sunshine vitamin" D, all have their parts to play. In short, a balanced diet, especially in the years of dentition, and the normal functioning of the glands of the body are essential for the health and efficiency of a person's teeth throughout life.

Physical stress has been investigated lately. The theory is that we abuse our teeth when we indulge in the modern and rather American *habit of mixing hot and cold food and drinks.* One moment we may be eating potatoes at a temperature of about 150 degrees F. and a few seconds later we may take a drink of something straight out of the refrigerator.

What would happen to a precious piece of glass treated in this way? What happens to your teeth? Perhaps cracks are formed, at least big enough to admit the bacteria of decay.

The theory has been tested in an "artificial mouth." Teeth were alternately heated and cooled and then crushed with various weights. More "shocked" (heated and cooled) teeth broke than unshocked ones, but the results cannot be called conclusive.

The "artificial mouth" needs a word of explanation. Human teeth are mounted singly or in pairs in a container through which flows a bacteriological medium, akin to saliva. Some important results have emerged from the "mouth."

Old teeth appear to be more resistant than young ones or unerupted teeth; tooth destruction, it seems, can be quite general if obviously localizing factors such as abrasions are not present, and it has been found that attacks of decay are greatly influenced by the amount of d-glucose in the "saliva."

This does not mean, necessarily, that sweet-eaters contract tooth decay more readily than others. Indeed, one series of tests in Germany showed, if it showed anything at all, that chocolate contained something—perhaps an inorganic substance in the cocoa bean—that seemed to have a decay-resisting action!

But what can we do to preserve our teeth? Some authorities advocate the regular "fluoridization" of all drinking water. Despite the resistance of those who say that we should not allow

our drinking water to be doped compulsorily for any reason, I am in favour of the process. It should be stressed, however, that fluorine seems to reduce the *extent* of tooth decay but not the disease itself.

And the best thing that can be said about tooth brushing, in my view, is that if we did not brush our teeth they would probably be worse than they are. But nobody can claim that they have entirely clean teeth however often they brush them.

And as to the merits of various brands of tooth-paste, I can but repeat a conversation I heard between two advertisers responsible for publicizing various brands.

They divided the pastes up into *three* categories—*biters, frothers* and what they called *gimmicks*." Those that "bit" contained *something* that tingled into the mouth; the frothers, of course, frothed; whilst the "gimmicks" were supposed to contain a little something that the others hadn't got. But the choice, I am afraid, must remain yours.—(Condensed from *Birmingham Post*, via *English Digest*, April '57).

Observations on the Food Habits of Myopic Children

PETER A. GARDINER, M.B., D.O.M.S., *London*

In the course of an inquiry into the development of myopia (short-sight) in children, which included questions about their diet, I was struck by the number of children who have rigid likes and dislikes of certain foods to the extent of consistently refusing some items.

The main sources of first-class protein are milk, cheese, meat fish and eggs. Over a period all the children attending a school clinic for refraction were asked whether they consistently refused one or more of these foods. The refusal to take milk as such or as a mainly milk-drink was counted as an absolute refusal. It is interesting in this connexion to find a number of children who refuse their school milk—thereby providing others with a double or sometimes treble portion.

It was possible to divide the children into groups of myopes who were rapidly deteriorating, slowly deteriorating, or stationary. A fourth group consisted mainly of hypermetropes (long sight) with a few emmetropes.

Results.—Tables I, II, and III show that myopes are more fussy about some of their food than other children. This was noted as a generalization by Miller (1940), though not in relation to these particular items. With increasing fussiness there is an increase in the activity of the myopia. The boys with highly active myopia show a refusal-rate more than twice that of boys who are not myopic, and the girls a rate over 50% higher. Double refusals are twice as frequent amongst active myopes as amongst others.

TABLE I—Refusals of Protein Sources

	Active Myopia rate 1 D per annum		Active Myopia rate 1 D per annum		Stationary Myopia		Others	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
No.	9	26	42	59	27	49	73	76
No. of refusals	5	17	20	30	12	22	18	32
Refusals per head	0·55	0·65	0·47	0·50	0·44	0·45	0·24	0·42

TABLE II—Percentage of Children Refusing Protein Sources

	Myopes (264)	Others (149)
Refusal of milk	16 per cent	5 per cent
„ cheese	18 „	14 „
„ meat	3 „	4 „
„ fish	12 „	8 „
„ eggs	4 „	3 „

The percentage figures shown in the different categories are not mutually exclusive.

TABLE III—Percentage of Children Refusing two or more Sources

	Active myopes	Stationary myopes	Others
Number	136	128	149
Percentage refusing two protein sources	11	7	5

That girls are more particular than boys about their food is well known, and in all these groups this is confirmed, though it is small in stationary and slowly deteriorating myopes. Though the rate of refusal is higher in girls than in boys in each group, it does not equal the rate of refusal for boys in the next group with a higher rate of myopic change.

The percentage refusing a particular source of protein do not provide any conclusive information. The most striking difference is in milk consumption. Over three times as many myopes refused milk as others.

Conclusion.—It must not be concluded that myopia in children is associated dietetically exclusively with a different pattern of protein consumption, still less with a deficiency in the accepted sense of the word. There is evidence (*to be published later*) that other food factors are implicated, and in most individual cases the food pattern is in no way basically abnormal even though the myopia may be increasing rapidly.

Before coming to a conclusion on the exact significance of these findings, the unusual growth of myopes (Gardiner, 1954, 1955) must be linked with more detailed dietary intakes (*to be published*). Nonetheless, the positive finding in this investigation is that myopic children are more particular about their sources of first-class protein than other children. There is an indication that this may be connected with their myopia because girls are more prone to pick and choose than boys and because the more active the myopia the higher the rate of refusal per head.—(*British Medical Journal*, 22-9-1956).

TRAINING YOUR VOICE

(The Organ of Your Soul)

H. DYSON

One of the first things people notice about you, is your voice. Rightly or wrongly, your voice is generally regarded as an accurate means of labelling you.

In view of this, it is obvious that one's voice, and the way one uses it, can be either a stumbling-block or a valuable asset.

Many of us, now and again, stumble in our speech when using certain words, not because they are really difficult to pronounce, but because of "lip-laziness."

Check up today by first asking yourself: "Do I tend to slur my speech in general conversation?"

Slurring of speech may be the reason why people sometimes ask you to repeat yourself. A little appropriate care could avoid such an embarrassment.

First, test your own voice. Ideally, this can be done with a recording machine; but you may get some idea how your voice sounds to others by speaking a few words in a natural tone to yourself in the corner of a room. Cup your ears as you do this, and you may be surprised at the strange voice you hear.

Correct pronouncement requires *three* things: *the tongue, the lips*, and *the teeth*. Power and clarity in speech depend on the proper use of these.

For speech improvement, try repeating the alphabet aloud for at least ten minutes each day in front of a mirror, first with your teeth together, and then in a normal manner.

Is your voice flat, weak, or high-pitched? The cause is often due to an acquired habit of talking through your nose, a weak diaphragm, or wrong breathing. The remedy generally includes that you open your mouth more widely than usual when you speak.

After a conscientious effort of a few weeks, it usually follows that flatness of voice shows definite signs of disappearing.

At the same time during this period, practise deep breathing to strengthen the power behind your voice, the diaphragm. Breathe deeply, especially during periods of actual conversation.

Deep breathing helps to control the voice. It also helps—if used in conjunction with the other voice exercises—to relax the throat muscles, and thus to check that grating, brassy type of voice.

Finally, and to add valuable polish to your speech, practise singing and reading aloud. This will improve articulation and rhythm.

> "Her voice was ever soft, gentle, and low—an excellent thing in a woman."—*Shakespeare.*

How wonderful is the human voice! It is indeed *the organ of the soul.* The intellect of man sits enthroned, visibly, on his forehead and in his eye, and the heart of man is written on his countenance, but the soul reveals itself in the voice only.—Longfellow.—(From *Good Health,* London, March 1957).

CONNEMARA PUBLIC LIBRARY

Post-Prandial Pleasant Topics

(From '*After Dinner*' by Oswald Lewis)

Diplomats

A diplomat is an honest man who is sent abroad to lie for his country.—(*Sir Henry Wotton*).

Doctors

A grocer, unable to obtain payment of his bill from a doctor, employed a debt collector. Next day he called to see the debt collector whom he found looking very worried. 'What's the matter ?' asked the grocer. 'I went to see the doctor' replied the debt collector. 'He said I wasn't at all well, looked at my tongue, felt my pulse and advised me to remain indoors for some weeks.'—(The Tatler).

* * *

An old doctor after a tiring day called to see a lady patient. Finding that he had forgotten his stethoscope and being a long way from home he laid his head on her chest and said 'Now count one, two, three...... ' Half an hour later the husband came in and went up to see his wife. He found the old doctor fast asleep and the lady saying 'Two thousand and one, two thousand and two......'

* * *

A young woman rang up her doctor and said that her small boy had swallowed the cap of her fountain pen. The doctor said he would come at once, and added 'What are you doing in the meantime?' 'Oh', replied the young woman, 'I am using my pencil.'

Drama

A play is like a cigar, If it is good, everyone wants a box ; if it is bad, no amount of puffing will make it go.—(*The Times Literary Supplement*).

Dress

An old lady addressing a perfect stranger at a party complained of the costumes worn by young girls today. 'Look at that one,' she said. 'With her short hair and trousers she looks more like a boy than a girl.'

'That, madam,' replied the stranger, 'is my daughter.'

'Oh ! I beg your pardon,' said the old lady. 'I had no idea you were her father.'

'I am not her father—I am her mother !"—(*The Limit !*)

Drunks

The captain wrote in the ship's log book 'Mate drunk last night'. So the mate, when it came to his turn to make an entry, wrote 'Captain sober last night'.

* * *

'But how on earth did you come to get so completely intoxicated ?' asked the Magistrate.

'I got into bad company, your honour. You see, there were four of us. I had a bottle of whisky—and the other three were teetotallers.'—(*Medley*).

Education

'Oh!' sir, answered Jones, 'it is as possible for a man to know something without having been to school, as it is to have been at school and to know nothing.—(*Tom Jones :* by Henry Fielding).

* * *

He who can, does. He who cannot teaches.—(*Man and Superman :* by G. Bernard Shaw).

Elections

A parliamentary candidate called at a Lancashire collier's house to solicit his vote. The collier was out, so the candidate asked his wife what his political views were. She replied 'When he's at a conservative meeting he's a conservative, but when he's at a liberal meeting he's a liberal'.

'And what is he at home?' asked the candidate.

'Oh!' answered the wife, 'when he's at home he's nothing but a damned nuisance.!—(*Rectorial Address* : Sir James Barrie).

Embarrassment

Don't worry about what people are thinking about you, for they are not thinking about you, but wondering what you are thinking about them.—(*Medley*).

* * *

Ignorance more frequently begets confidence than does knowledge.—(*The Descent of Man* : Charles Darwin).

* * *

A well known American speaker used to say that the three hardest things to do were to climb a fence leaning towards you, to kiss a girl leaning away from you, and to acknowledge with proper humility a flattering introduction.—(*The Toastmaster's Handbook :* H. V. Prochnow).

Englishmen

A Frenchman once said that Englishmen act like men when they are boys and like boys when they are men !—(*The Sunday Times*).

* * *

She : "I think it's a sad state of affairs when one reads of comedians earning more than cabinet ministers."

He : "Oh, I don't know. On the whole they're funnier."—(*Joker*, Copenhagen).

Labour Under A Misconception

After signing a batch of personal letters his Secretary had typed for him, an executive asked her to add a postscript to one saying, "Congratulations on the new arrival." The Secretary inadvertently added it to the wrong letter, and the puzzled recipient wrote back to set his friend straight.

The Secretary redeemed herself by drafting this reply for her boss's signature : "Sorry about the mix-up over the new baby. I must have been labouring under a misconception."—(*Elton Hailey*).

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